

ATTACHMENT 6**MITIGATION MEASURES AND PROJECT CONDITIONS**

This attachment to the Site Certification Amendment (SCA) incorporates mitigation measures included in the SCA Application, as well as agreements made with the Washington Department of Ecology (Ecology), Washington Department of Fish and Wildlife (WDFW), Washington Utilities and Transportation Commission and the City of Sumas. The attachment is organized into five parts: Part I - General Conditions; Part II - Construction Methodology; Part III - Construction Mitigation; Part IV - Operation Mitigation; and Part V - Further Mitigation Measures.

PART I GENERAL CONDITIONS**A. General Statement of Commitments**

The Sponsor will take the following actions as described more fully below: 1) develop a detailed construction management plan for the primary construction at the generating facility site; 2) develop a number of identified plans (erosion and sediment control, right-of-way management, etc.), which shall indirectly protect fish and wildlife resources; 3) provide mitigation pursuant to the specific terms or general formulas and methodologies provided herein; and 4) commit to principles of impact assessment and a formula for mitigation replacement for those impacts, if any, that are not identified until construction or operation, or that result from impacts that are unavoidable or not susceptible to restoration by other action.

The generating facility site has been previously disturbed by the cultivation of agricultural crops. Accordingly, the value of the habitat that will be affected by construction and operation of the S2GF is lower than it would have been if the habitat had never been disturbed. The commitments made by the Sponsor in this Attachment 6 and in Attachment 5 to the SCA are intended to generally protect and improve habitat for fish and wildlife resources.

B. Unanticipated Impacts

The principles of impact assessment that shall be applied to all unanticipated impacts are, in descending order of importance, 1) avoid the impact wherever possible; 2) minimize the impact; 3) provide on-site, in-kind mitigation; and 4) provide off-site compensatory mitigation.

C. Plans to be Submitted Prior to Construction

The Sponsor shall develop the following plans, maps, and studies for submittal to EFSEC:

1. A Notice of Intent to be covered by Ecology's General Baseline Permit for Stormwater Discharges.
2. A Stormwater Pollution Prevention Plan.

The Plan will also be submitted to WDOE for review and comment concurrent with EFSEC's review. Source control Best Management Practices will be selected and identified during a detailed design of the plant site, and will be included in the required Stormwater Pollution Prevention Plans.

3. A detailed map showing right-of-way acquisition and land uses impacted within the right-of-way.
4. Construction Management Plan

The Sponsor shall develop and submit for the Council's review and approval a detailed construction management plan, which shall encompass the primary construction phases (excavation, filling or grading) of the facility development. The construction plan shall be generally based on the mitigation measures contained in the following sections of this Attachment 6 and in Attachment 5, which are incorporated into the SCA as binding commitments. The Sponsor agrees that the special construction provisions set out in this Attachment 6 and in Attachment 5 shall be incorporated into the construction management plan and to the extent in conflict, shall supersede directions or commitments contained in the Application for SCA. This

construction management plan shall be completed three (3) months prior to the start of on site construction.

5. Construction Traffic Management Plan

Prior to the commencement of construction of the S2GF, a construction traffic management plan shall be submitted to EFSEC for its review and approval. The traffic management plan shall include, but not be limited to, the following:

- a. A traffic control plan indicating the methods to be used to implement necessary traffic rerouting, means of assuring access to impacted properties, and methods of providing temporary traffic control for safety.
- b. A program which will facilitate the exchange of commuting information among construction workers and encourage ride sharing.
- c. A parking plan showing available parking areas for construction workers.
- d. This traffic control plan shall be submitted to the Council thirty (30) days prior to the start of on site construction.

In addition, the Sponsor shall submit the following plans to EFSEC for its review and approval and shall consult with WDFW and Ecology during the development and review of these plans:

6. Erosion and sediment control plan, including stormwater control plan during construction.

7. Stormwater Drainage Design Plan

- a. The stormwater drainage design will include the design of an orifice intended to permit an adequate flow of water into the created and enhanced wetland area located on the southwest portion of the site and shall include a means of directing increased stormwater flows into the proposed drainage along the north and east property lines. The design shall also include an

orifice intended to permit an adequate flow of water into the created and enhanced wetland area located to the east of the site and shall include a means of directing increased stormwater flows directly into the existing 42-inch stormwater drainpipe when such increased flow would potentially create scour or erosion within the new wetland areas.

- b. SE2 agrees to limit the peak rate of discharge from the site such that:
 - 1. The peak rate of stormwater discharge from the developed site will be limited to match the peak rate of discharge prior to development for the 10-year 24-hour storm and for the 100-year 24-hour storm in the absence of flood waters that would inundate the storm water detention pond.
 - ii. The rate of discharge from the 2-year 24-hour storm from the developed site will be limited to one half (1/2) of the peak rate of discharge from the 2-year 24-hour storm from the site prior to development.
 - iii. The limits will apply to all points of discharge from the site.
- 8. Restoration of project site, natural gas pipeline and electrical transmission line construction area plan, including restoration, revegetation and maintenance practices, schedules, monitoring methods, contingencies, and noxious weed control measures.
 - a. Suggested native species that may be used for revegetation in the on-site constructed wetland include: Black cottonwood, Red alder, Salmonberry, Scouler willow, Pacific willow, Red-osier dogwood, Slough sedge, and Tall mannagrass.
 - b. Suggested native species that may be used for revegetation in the on-site enhanced wetland include: Black cottonwood, Red alder, Salmonberry, Scouler willow, Pacific willow, and Red-osier dogwood.

- c. Suggested native species that may be used for revegetation in the on-site nonwetland buffer include: Western Hemlock, Western Red Cedar, Black cottonwood, Red alder, Vine maple, Wild Rose, Salmonberry, Scouler willow, Bearded fescue, Hair Bentgrass , and Native Bluegrass (*Poa nervosa*) .
 - d. Suggested native species that may be used for revegetation in emergent pasture wetlands include: Slough sedge, Beaked sedge, Spike bentgrass, Bluejoint reedgrass, and Northern mannagrass.
9. SE2 will, in coordination with Ecology, develop a Performance Plan ("Plan") for its wetland mitigation. The Plan will include the following: a description of monitoring that must be performed; a monitoring schedule; submittal of monitoring reports on a prescribed schedule; performance standards for each aspect of the wetland mitigation plan; and contingencies in the event that any aspect of the wetland mitigation plan fails.
10. Hydrostatic test water use and control plan.
- a. Perform 100 percent radiographic inspection of all section welds prior to installation under water bodies or wetlands.
 - b. Screen the intake hose (3/32" perforations) to prevent entrainment of fish. The maximum approach velocity shall not exceed 0.4 feet/second.
 - c. At least thirty days prior to use, provide to EFSEC a list of specific locations proposed for withdrawal and discharge of hydrostatic test water and allow EFSEC to review and comment on the list in consultation with WDFW and WDOE.
 - d. Notify EFSEC, WDFW and WDOE of intent to begin using specific sources at least 48 hours prior to testing.
 - e. Maintain adequate flow rates at all times to protect aquatic life and provide for all other water body uses, including downstream withdrawals.
 - f. Hydrostatic test manifolds shall be located outside wetlands and riparian areas.

- g. If a utility line is pressure tested using water or chlorinated water, and such water is to be discharged to waters of the State upon completion of the test, such discharge shall not cause an exceedance of State water quality standards.
 - h. Regulate discharge rate and use energy dissipation device(s) in order to prevent erosion of upland areas, stream bottom scour, suspension of sediments, or excessive stream flow.
11. These plans must be submitted to the EFSEC at least 3 months before construction.

D. Plans, Specifications and Operation of Natural Gas Pipeline

- 1. During the design, construction, operation, and maintenance of the Project, SE2 shall comply with WUTC rules and regulations governing natural gas pipelines, WAC chapter 480-93, and with applicable federal pipeline safety rules and regulations, including those rules set forth in 49 C.F.R. Parts 191 and 192.
- 2. SE2 shall prepare comprehensive written specifications and standards for the Project consistent with regulations set forth in 49 C.F.R. Part 192. Specifications shall include a map that identifies the pipeline and its components. SE2 shall file such comprehensive written specifications and standards for the Project with EFSEC and WUTC at least 90 days prior to the start of construction or reconstruction of the Project.
- 3. The pipe shall be designed as follows:
 - a. Pipe. The pipeline will be constructed using electric resistance welded low carbon steel pipe API-5L, X56 or better. The pipe will be designed for a maximum hoop strength less than 20% of the specified minimum yield strength (SMYS). The pipe will have a longitudinal joint factor (E) of 1.00.
 - b. Specified Minimum Yield Strength. The pipeline will be constructed of pipe having a specified minimum yield strength of at least 56,000 psi.

- c. Pipe Thickness. The pipeline will be constructed of pipe that is 0.375 inches thick, which is roughly twice the thickness that federal regulations require for pipelines, such as this, that are located in Class I areas. In fact, this pipe will exceed thickness requirements for pipelines located in Class IV areas.
- d. Flexibility. The pipeline will be designed to prevent thermal expansion or contraction from causing excessive stresses in the pipe or associated components as defined in 40 C.F.R. § 192.159.
- e. External Pipe Coating. In order to resist corrosion, the pipeline will be coated with fusion-bonded epoxy overlain with a layer of extruded polyethylene.
- f. Valves & Flanges. Valves will meet or exceed the minimum requirements found in 40 C.F.R. § 192.145. Flanges will meet or exceed the minimum requirements found in 40 C.F.R. § 192.147.
- g. Welds. Pipeline joints will be welded by qualified welders following written welding procedures specifying the methods for welding all required pipeline joints. Welding procedures and pipeline welders will be qualified in accordance with API Standard 1104. The procedures will be submitted to the WUTC for approval prior to construction. During construction, welder qualification records will be available as required by 40 C.F.R. 192.227, and will include a Coupon Test Report.
- h. Depth. The pipeline will be buried a minimum of 4 ½ feet (to the top of the pipe) to minimize the possibility of inadvertent third-party damage. Warning tape will be placed in the trench above the pipeline to warn anyone excavating of the pipeline's location.
- i. Bedding. Pipeline bedding and shading material will consist of sand or sand-like material, with a minimum of 6 inches of fine materials no larger than 3/8-inch to protect the pipe and coating. Bedding will cover the entire pipeline.
- j. Operating Temperature. The gas operating temperature is expected to be no higher than 60 degrees F. The temperature derating factor (T) will be 1.00. (See 40 C.F.R. § 192.115.)

- k. Cathodic Protection. The pipeline will be further protected from corrosion by a Sacrificial Anode Cathodic Protection System, with sacrificial anode beds installed at intervals along the pipeline. The system will be designed based on the results of a site-specific cathodic protection survey. Test stations will be installed at several locations along the line to facilitate monitoring of the system.
- l. Emergency Valves. The pipeline will have two isolation valves. An emergency shut down valve will be installed at the regulator station within twenty feet of the border. A second valve will be located at the SE2 facility. The valves at the regulator station and at the SE2 facility will have blow down stations that will allow for the safe release of natural gas to the atmosphere in a safe manner. They will have manual valves and vertical stacks made of carbon steel pipe that rise to at least 10 feet above ground surface. A remote shutoff valve operated from the facility main control room will be installed at the border pressure reducing station.
- m. Control System. Pressure monitoring devices will be installed at each end of the pipeline to monitor the pressure drop of the pipeline. The pressure signal at the border pressure regulating station will be transmitted to the control room at the facility. The facility supervisory control system will be designed to send a signal to close the emergency shut down valve at the border station under high or low pressure conditions, or if the rate of pressure decay exceeds established parameters.
- n. Pressure Regulation and Overpressure Protection. A pressure regulation station will be designed to include overpressure protection to prevent the line pressure from exceeding maximum allowable operating pressure (MAOP). The maximum operating pressure will not exceed 499 psig. SE2 shall request approval from WUTC to operate the pipeline at pressure exceeding 250 psig that is within 100 feet of buildings as required by WAC 480-93-030 Prescribed Areas.

4. Specific Stream and River Crossing Methods

<u>STREAM NAME</u>	<u>METHOD</u>
Sumas Creek	Horizontal Directionally Drill
Johnson Creek	Horizontal Directionally Drill
Bone Creek	Horizontal Directionally Drill

5. SE2 shall also notify EFSEC and WUTC at least 30 days in advance of initial ground breaking.
6. During and immediately following construction, the following tests will be performed to ensure pipeline integrity:
- Welds. 100% of the welds will be inspected radiographically, by a qualified radiographer. Any defects found in welds will be replaced or repaired. All repaired welds will be radiographed again to ensure their integrity.
 - Coating. The entire pipeline coating will be "jeeped" just prior to lowering into the trench to detect holidays and other defects in the coating. Any flaws detected will be repaired.
7. Hydrostatic Testing. SE2 will conduct a 24-hour hydrostatic pressure test at at least 150% of MAOP for the two segments of the pipeline. The segment from the Canadian border to the pressure regulating station will be tested at at least 1200 psig, and the segment from the pressure regulating station to the facility will be tested at at least 750 psig.
8. Internal Line Inspection. Following construction, SE2 will conduct an internal line inspection with a internal inspection device commonly known as a "smart pig." Inspection device specifications will be submitted to WUTC 30 days prior to running the device. The company will submit smart pig inspection results to the WUTC upon completion along with a schedule for excavation, repairs and replacement of any defects that affect the integrity of the pipe or components.
9. Cathodic Protection Inspections. Following construction, SE2 will conduct a continuous potential survey to verify the effectiveness of the

cathodic protection system. SE2 will also conduct a stray current test to check for possible interference caused by other utilities in the area.

10. The pipeline will be operated and maintained as outlined in the revised Application for Site Certification, including the following:
 - a. Qualified Operators. Qualified operators will operate and maintain the pipeline. Operators will comply with State and Federal Pipeline Safety regulations concerning operator training and certification. SE2 will develop operator qualification requirements prior to pipeline operation.
 - b. Operations and Maintenance Manual and Emergency Plan. A detailed operations manual will be developed to address standard operations and maintenance practices, and responding to abnormal operating conditions as required by 49 C.F.R. 192.605 and WAC 489-93. SE2 will develop an emergency plan to address emergency response activities as described in WAC 480-93-180 and 49 C.F.R. 192.615. The manual and plan will satisfy state and federal regulations related to pipeline operation and maintenance. They will be submitted to the WUTC 45 days prior to initial operation and subsequent changes and amendments filed promptly thereafter.
 - c. Leak Detection Surveys. SE2 will conduct monthly leak detection surveys, inspecting the right of way visually and with the use of flame ionization gas detectors.
 - d. Internal Line Inspections. SE2 will conduct inspections with internal inspection devices (smart pigs) during major plant shutdowns, which occur approximately every five years.
 - e. Cathodic Protection Inspections. SE2 will regularly monitor the effectiveness of the cathodic protection system. SE2 will inspect the system twice a year, and will conduct a continuous potential survey once every two years following construction.
11. The WUTC shall notify SE2 and EFSEC of any noncompliance of the comprehensive written specifications and standards with the

regulations set forth in the Washington Administrative Code (WAC) 480-93 and 49 C.F.R. Part 192.

12. The WUTC shall submit a noncompliance report to SE2 and EFSEC within 45 days of completion of the audit.
13. The WUTC shall monitor the design, construction, operation and maintenance of the Project. If the WUTC becomes aware of any noncompliance with state or federal regulations during the design, construction, operation and maintenance of the Project, the WUTC shall notify SE2 and EFSEC, and the Applicant may be subject to appropriate enforcement action by the WUTC as authorized by R.C.W. 80.28.212.
14. SE2 shall report to the WUTC any accident or safety related condition at the same time the accident or condition is reported to the U.S. Department of Transportation, Office of Pipeline Safety.
15. ~~Interruptible Gas Supply. A backup diesel fuel supply is included to provide fuel to the SE2 project in times of gas supply interruptions. SE2 will contract with a local distribution company or some other entity, so that whatever entity with whom SE2 contracts can call upon SE2's natural gas supply when it needs the additional supply to satisfy its customers. SE2 will contract with an entity (such as a local distribution company or other marketer) that serves customers in the Pacific Northwest.~~

E. Plans to be Submitted Prior to Operation

Six months prior to commencement of operation, the Sponsor will submit to EFSEC the following plans for its review and approval:

1. An emergency response plan including details on training, education, and equipment (SCA, Article VII, Section B).
2. A Spill Prevention, Control and Countermeasure Plan (SCA, Article VII, Section G).

WDFW and Ecology shall be provided with a copy of the Spill Prevention, Control and Countermeasure Plan, and the long-term stormwater control plan (SCA, Article V, Section C).

F. Consolidation of Plans

Any plans required by this Agreement may be consolidated with other such plans, if such consolidation is approved by EFSEC.

PART II CONSTRUCTION METHODOLOGY AND MAINTENANCE

A. General Construction Procedures

The Sponsor shall provide an independent environmental monitor (EM) with "stop-work" authority that reports to EFSEC.

1. The EM shall be under the supervision and employ of the Sponsor and independent from any construction contractor party utilized. The EM shall report independently to EFSEC regarding the specific environmental protection criteria set out in this Agreement.
2. Standard environmental monitoring criteria shall be developed for EFSEC, in consultation with WDFW and Ecology, prior to initiation of Project construction.
3. The Sponsor shall identify EM "stop-work" implementation criteria for EFSEC, in consultation with WDFW and Ecology.
4. No excavation, filling or regrading work shall be performed at any time unless there is full, concurrent independent environmental monitoring.
5. All EM reports are to be submitted to EFSEC at the same time that they are submitted to the Sponsor's Project Engineer.
6. EFSEC, WDFW, and Ecology are to be promptly notified by facsimile (fax) or in person of any emergency response or any work stoppage requested by the EM.

B. Erosion Control

See Attachment 5.

C. Wetland and Aquatic Standards

1. Construction Timing

- a. All “out of the water” soil disturbing activities associated with wetland, stream, or river crossings shall occur during the dry portion of the year, typically late spring through early fall.
- b. Construction related activity that may be necessary within the wetted channel and/or within fifty feet of the bank shall be limited to the period of June 15 through October 15. This provision shall supersede any other or inconsistent dates provided elsewhere.

2. Access, Staging, and Ancillary Areas

- a. All equipment crossing a water body must use a construction bridge. Culvert crossings are not allowed.
- b. All equipment bridges shall be designed to pass the maximum flow and be maintained to prevent flow restrictions during the period that the equipment bridge is in place.
- c. The only access roads, other than the construction right of way, that may be used in wetlands are those existing roads that can be used with no modification and no impact on the wetland.
- d. Locate all staging areas, additional spoil storage areas, and other additional work areas at least 50 feet away from the ordinary high water mark or wetland boundary. In no event shall vegetation be cleared between these areas and the water body or wetland. Limit size to minimum needed to construct the wetland or water body crossing.
- e. Refuel all construction equipment at least 100 feet from water bodies or wetland boundaries.

3. Spoil Pile Placement and Control

- a. The upper 12" of topsoil will be reserved, separated from subsoil, and returned to the trench as a final layer for planting.
- b. All spoil material from water body crossings must be placed in the right of way at least 50 feet away from the ordinary high water line. All spoil shall be contained within sediment filter devices

4. General Construction Procedures/ Monitoring of Performance

- a. Notify the WDFW at least 48 hours prior to commencement of pipe installation activities under each water body.
- b. In wetlands and riparian areas, limit the construction rights-of-way to 50 feet or less.
- c. In wetlands and riparian areas, vegetation that must be removed shall be cut at ground level, leaving existing root systems intact. Limit pulling of tree stumps and grading activities to those areas where root systems would directly interfere with trenching, pipe installation and backfill.
- d. If standing water or saturated soils are present, use low ground weight construction equipment and/or operate on prefabricated equipment mats.
- e. Pre-construction wetland hydrology, which will be documented during pre-construction planning, will be maintained with the installation of impermeable plugs at the edge of the wetland, and in the pipeline trench, comprised of an impermeable material.
- f. Silt fencing will be used to protect wetlands outside the construction corridor from sedimentation.
- g. The affected wetland areas will be regraded to pre-project contours.

- h. The flow of the existing ditches will be restored and maintained after construction.
- i. Disturbed areas will be revegetated with approved native vegetation, or vegetation consistent with ongoing agricultural use, prior to the next wet season following construction.
- j. Emergent wetland areas will be reseeded or hydro-seeded with a mix of native species, identified in section II.B.7 of Attachment 7 (Agreement with WDFW), which will be selected after consultation with WDFW prior to the next growing season.

D. Right-of-way Maintenance Practices

- 1. No herbicides or pesticides are to be used in or within 100 feet of a water body unless such use has been approved by WDFW and WDOE as a means of preventing the spread of undesirable exotic vegetation in conformance with B.8.d. below.
- 2. SE2 shall not utilize vegetation maintenance practices for normal right of way maintenance over the full width of the permanent right of way in wetlands and riparian areas . To facilitate periodic pipeline surveys, however, a corridor centered on the pipeline up to ten feet wide may be maintained in a herbaceous state. In addition, trees that are located within fifteen feet of the pipeline and are greater than fifteen feet in height may be selectively cut and removed from the right of way by SE2, using replacement criteria described in section II.D.4, of Agreement 7.

E. Monitoring of Revegetation

- 1. SE2 shall monitor the success of revegetation annually, with written reports to EFSEC and copies to WDFW and WDOE, for the first five years after construction.
- 2. Revegetation of wetland, riparian, and upland areas that are currently vegetated with native species is considered successful if the native herbaceous and/or woody cover is at least eighty percent of the total cover, and native species diversity is at least fifty percent of the diversity originally planted in the area.

3. If revegetation is not successful at the end of five years, riparian and upland habitats will follow the replacement criteria found in section II.D of Attachment 7.b. If wetland revegetation is not successful at the end of five years, the project sponsor shall develop and implement (in consultation with a professional wetland ecologist and the Departments of Ecology and Fish and Wildlife) a plan to actively revegetate the wetland with native wetland herbaceous and woody plant species
4. SE2 shall develop specific procedures to prevent the invasion or spread of undesirable exotic vegetation.

PART III CONSTRUCTION MITIGATION

A. Generating Facility Site Wetlands

1. Wetland Delineation & Mitigation Report

SE2 shall undertake a wetland mitigation plan that includes a combination of wetland preservation, enhancement and creation to replace wetlands that will be filled and/or altered. This plan, entitled "Wetland Delineation & Mitigation Report" (the "Report") dated June 26, 2000 (filed with EFSEC as Exhibit JW-4) is incorporated into this Agreement.

2. Additional Mitigation

- a. SE2 agrees to modify the performance standards for trees and shrubs set forth on pp. 23 and 24 of the Report so that 50% of the canopy closure for those vegetation types will be achieved by Year 10.
- b. SE2 agrees to plant Western red cedar trees in the forested and shrubbed wetland on the site to enhance this wetland. The cedars will be planted on 15-foot centers or in pods through the wetland where the elevation is conducive for their growth. SE2 agrees to develop a detailed plan for these plantings and to consult with, and seek consensus with WDFW during the development and review of the plan. The parties agree that the plan will include site-specific performance standards that will be

in lieu of the vegetation performance standards set forth in the Report.

- c. SE2 agrees to modify the design of the drainage ditches on the site, including the outlet design, to insure that an adequate supply of water is provided to the wetlands being created and enhanced, and to provide additional habitat features. This modification will include maintaining a vegetative channel east of the forested and shrubbed wetland, and on the north and east sides of the project site, provided that there is adequate width on the east side of the property site in conjunction with a landscaped screen. SE2 agrees to develop a design plan for these modifications and to consult with, and seek consensus with, WDFW during development and review of the plan.

- d. SE2 must also comply with any additional requirements contained in permits issued by the U.S. Army Corps of Engineers and related § 401 certifications issued by EFSEC.

B. Right-of-Way Upland Habitat Mitigation

1. Shrub Habitat

- a. Shrub areas that are cleared for construction of the gas pipeline or the electrical transmission line will be restored to shrub habitat by SE2 following construction. For shrub areas that are cleared and that are not returned to shrub habitat, mitigation shall be by replacement of shrub habitat in selected locations that are controlled by SE2, or otherwise protected, (restoration or creation) in an amount equal to twice the unrestored shrub area. Successful planting of shrubs in formerly disturbed herbaceous sites (such as abandoned agricultural fields) shall qualify. It is understood by the parties that the gas pipeline and electric transmission line are being constructed in easements not on property owned by SE2; therefore, SE2 will not have control of activities of the owner after SE2's restoration activities are implemented.

- b. With respect to the electrical transmission line, trimmed material and tree trunks will be typically left on the ground in natural vegetated areas for habitat features. Footing construction areas are to be restored and revegetated according to pre-construction conditions.

2. Herbaceous Habitat

- a. Disturbance impacts to herbaceous habitat shall be mitigated by restoration of the disturbed areas using approved native species with safeguards against weedy invasive species.
- b. In areas where the natural gas pipeline traverses cultivated agricultural areas, or areas occupied exclusively with grasses, the grass areas will be re-seeded, while areas planted in corn may be left as is.

3. Forest Habitat

To replace trees that are removed from the rights of way due to construction or maintenance activities, standard size apple and crabapple, or other appropriate fruit producing trees, will be planted in selected locations that are controlled by the company, or otherwise protected. Those locations will be more than fifteen feet from the centerline of the pipe. Tree replacement will be at a ratio of three new trees for each tree removed.

C. Fugitive Dust

To control fugitive dust during construction, water will be applied as necessary, and access roads will be gravelled or paved as practical.

D. Cultural and Archeological Resources

- 1. Archaeological studies of the S2GF project area did not identify any National Register-eligible cultural resources. Because construction and operation of the facility is not expected to impact cultural resources, no site-specific mitigation measures are required.

2. Because construction of the facility could expose previously unknown cultural resources, the Sponsor shall monitor construction to ensure that any cultural resources are properly identified, evaluated, and, if necessary, impacts are mitigated. Monitoring will be directed by an experienced archaeologist. If cultural resources are discovered during construction monitoring, the archaeologist will request a halt to work in the affected area and contact the Washington State Office of Archaeology and Historic Preservation (OAHP). If a discovered site contains one or more Native American burials, the monitor will notify the appropriate Tribe and discuss mitigation measures with the Sponsor, Tribal representatives and the OAHP.

E. Public Services and Utilities

1. Construction activities shall be coordinated with local police and fire departments, and emergency medical service providers to ensure access to all locations in the project site vicinity in the case of an emergency.
2. To help mitigate loss of access and other traffic related impacts, adequate traffic control and signage, indicating closures and alternate routes, shall be provided during construction.
3. Construction vehicle trips in and out of the immediate construction zone shall be coordinated and scheduled away from "rush-hour" periods, to minimize general traffic disruption.
4. During construction, precautions shall be used to ensure that excavations do not damage underground utilities, including communications cables.

PART IV OPERATION MITIGATION

A. Noise

SE2 will monitor sound levels before construction and after operation of S2GF. In addition to monitoring sound metrics related to demonstrating compliance with County and City noise regulations, SE2 will evaluate low

frequency sounds and tones. The monitoring shall include a minimum of 12 locations up to a distance of 3.5 miles from the plant. SE2 will select measurement locations in concert with City of Sumas or Whatcom County staff, focusing on residential locations.

Post operational noise measurements shall begin within two months of the commencement of operation. If monitoring indicates that the plant is not in compliance with City and County noise regulations or that S2GF generates low frequency sounds or tones that City and County noise regulation staff jointly agree are reasonably objectionable, SE2 engineers will investigate the source of the noise and identify one or more means of mitigating the noise. At the end of the S2GF's first operational year, SE2 will submit for the Council's approval a report providing the pre- and post-operation monitoring results and any mitigation plan found to be necessary.

Once post operational monitoring indicates that the plant is in compliance with City and County noise regulations and that there is no reasonably objectionable low frequency noise or tones, the noise-monitoring program will be deemed complete.

~~The S2GF will be designed to meet acceptable State and local noise standards. SE2 agrees to perform pre- and post-construction monitoring to verify compliance with code requirements. Once operational, if SE2 is found to exceed the City's noise limits, SE2 will install additional noise abatement measures at the facility in order to bring noise limits into compliance with code requirements.~~

B. Air Quality

Within twelve (12) months of the effective date of this Agreement, SE2 shall submit to EFSEC for approval a plan for offsetting the NOx and particulate matter (PM) emissions from the S2GF by reducing actual emissions in the Fraser Valley airshed. For purposes of this provision, the "Fraser Valley airshed" is defined as the triangle-shaped Fraser Valley delta, including both United States and Canadian territory, between the Strait of Georgia and the City of Hope, bounded on the north by the Coastal Mountains, and on the south by the Cascade Mountains to the northern slope of the Alger Hills south of Bellingham. In the event that SE2 is unable to privately negotiate and implement offset projects, SE2's obligation under this provision will be

deemed satisfied by the payment of U.S.\$1,500,000 at the commencement of operations into a fund to be administered jointly by the Washington Department of Ecology and the British Columbia Ministry of Environment, Lands and Parks and to be used for the improvement of air quality in the Fraser Valley Airshed.

Ammonia emissions shall not exceed 5 ppm.

~~Although neither U.S. nor Canadian law requires SE2 to offset its air emissions, SE2 has been working with Canadian authorities to explore opportunities to offset its emissions by reducing the emissions from existing sources in the airshed.~~

~~At this time, SE2 has not yet been able to finalize the details of an offset arrangement. Nonetheless, it remains SE2's intention to work with Canadian authorities to implement a project that would substantially offset the NOx and particulate matter emissions from the SE2 facility. If SE2 is unable to arrange a specific offset project, SE2 is prepared to establish a substantial trust fund that would provide funding to reduce NOx and particulate emissions in the Fraser Valley.~~

~~SE2 shall report back to the Council on this matter within three (3) months of the date of this SCA.~~

C. Greenhouse Gases

SE2 shall mitigate and offset greenhouse gas emissions from the S2GF according to the monetary path payment requirements established the Oregon Energy Facility Siting Council, Oregon Administrative Rules chapter 345, except as otherwise provided herein. Ninety days (90) prior to commencing operation of the S2GF, SE2 shall submit for EFSEC's approval a calculation of the payment that would be required if the S2GF were subject to the Oregon Energy Facility Siting Council's Standards for Energy Facilities that Emit Carbon Dioxide. See Oregon Admin. Rules Chap. 345, Div. 24. Upon EFSEC's approval of SE2's calculation, SE2 shall make the first of five equal payments totaling the amount due under this provision to the Oregon Climate Trust. SE2 shall make each of the four subsequent payments on annual intervals.

PART V FURTHER MITIGATION MEASURES

A. Further Mitigation to the City of Sumas for Generating Facility Site Impacts

1. Water Supply.

- a. As a condition of the City of Sumas supplying cooling and potable water to the project, SE2 agrees to pay for a new high-capacity well and pump at the Sumas Municipal Well Field; one or more new wells and pumps at the May Road Well Field, and two new segments of water line necessary to maintain adequate fire flow elsewhere in the industrial area.
- b. If the Project is certified and built, SE2 also agrees to pay the City, in addition to any other applicable fees and charges, \$25,000 per year of operation to be used by the City solely for the purposes of aquifer protection, and research and analysis to support future water rights applications.

2. Nitrates.

- a. In the event that nitrate concentrations in the City's potable water supply exceed applicable federal, state or local standards at any date subsequent to the Project's start of operation, regardless of the cause of the nitrate exceedences, SE2 agrees to reimburse the City, as described hereafter, for a nitrate removal system in order to comply with the applicable standards. SE2 and the City agree that the initial estimate of the capital cost of a nitrate removal system is \$500,000 in the year 2000. SE2 and the City agree that the future cost of the system is the aforementioned initial estimate adjusted annually by the GDP Implicit Price Deflator, using 2000 as the base year ("Future Costs"). SE2 agrees to assume sole financial responsibility for up to the Future Costs of the nitrate removal system.
- b. Further, SE2 agrees to pay its proportionate share of any costs in excess of the Future Costs (based upon SE2's contracted volume of potable water usage in relation to the City's total potable water right volume of 1,919 acre-feet per year). SE2 agrees that it will

consent to a water rate surcharge imposed on the SE2 facility, in an amount sufficient to discharge SE2's above-described financial obligation over a ten-year amortization period.

3. Protection for Local Wells

At least twelve (12) months prior to operation, SE2 shall perform a baseline survey of all wells within the potential zone of influence identified by the Council's Final Environmental Impact Statement (approximately a one-mile radius around the City of Sumas' municipal wellfield). The survey shall include wells on both sides of the international border. SE2 will identify all wells within this zone and determine their distance from the City of Sumas municipal and May Road wellfields that will supply water to the S2GF. Where well construction and geologic information is available for individual wells, such information will also be collected. With the consent of the well owners, the water level in each well surveyed will be measured to identify a background condition.

In addition, at least twelve (12) months prior to operation, SE2 shall install a set of dedicated monitoring wells for the City of Sumas municipal and May Road wellfields. These monitoring wells will be outfitted with pressure transducers and data loggers to provide continual monitoring of the water level response resulting from wellfield production. The monitoring wells will be located to provide both near and distant water level responses, according to the wellfield characteristics.

Prior to S2GF operation, SE2 shall also perform a controlled test of the two City wellfields to confirm the zone of influence from withdrawals for SE2. Any additional areas of influence identified through this testing shall be added to the pre- and post-operation well monitoring network.

The continuous measurement of the monitoring wells and quarterly measurements from wells within the zone of influence baseline survey will define the water level changes over time that are occurring at these sites due to seasonal fluctuations and water use patterns prior to operation of the S2GF.

After S2GF commences operation, monitoring of all wells within the updated potential zone of influence whose owners consented to pre-

operation monitoring will be performed monthly for the first year of plant operation.

At the end of the S2GF's first operational year, SE2 will submit a report to the Council, providing the monitoring results. If a well is identified as adversely impacted by the City's increased water withdrawals, SE2 will submit for the Council's approval a mitigation plan to replace lost well production capacity and prevent further loss. Such mitigation plan may include lowering of the pump in the well, providing additional water reserve, well redevelopment or rehabilitation to improve efficiency of production, drilling a new well, or paying for hook-up to public water, as warranted and appropriate.

After the initial year of operation, monitoring will be performed semi-annually except any areas of concern noted in the initial annual summary, which will be monitored more closely. Annual summaries will be provided to EFSEC for the following four years of plant operation.

~~Six wells have been identified as being within the theoretical radius of influence of the water supply.~~

- ~~a. SE2 will perform pre-operation and post-operation monitoring on those six wells to determine pre-project water supply levels, and post-operational effects from the project's use of water.~~
- ~~b. SE2 will mitigate for any post-operation problems with pumping to ensure that they do not experience impairment of their water rights.~~
- ~~c. The results of the pre-operation and post-operation monitoring will be provided to EFSEC, to the City of Sumas and to the six well owners.~~

4. Public Roads.

- a. During the construction of the facility, there may be an increase in the amount and weight of traffic on all roads designate by the Washington Department of Transportation for Canadian weight

limits. SE2 agrees to make any repairs to these roads that are necessary in light of damage caused by SE2's construction-related traffic.

- b. The City will perform pre- and post- construction evaluations of the conditions of these roads, and will determine, on the basis of these evaluations, whether repairs are necessary following construction.
- c. In addition to the damage related repairs, described above, SE2 agrees to repave the portion of Bob Mitchell Avenue extending north from Front Street to the Burlington Northern grade crossing, which is approximately 1700 feet long.

5. Electrical System.

- a. SE2 agrees to pay the costs to re-conductor the 12.47 kV 3-phase line extending from the south sub-station to Bob Mitchell Avenue.
- b. SE2 also agrees to pay the cost to obtain and install a pad-mounted switch (equivalent to S&C Model 662-32) at a location determined by the City adjacent to the facility in order to provide safe management of the electric utility in the vicinity of the SE2 site.

6. Flood Hazards.

In consultation with the Whatcom County Public Works Department, River and Flood Section and the City of Sumas, SE2 shall perform unsteady flood modeling of the Site for 10, 25, 50 and 100-year flood events, and evaluate potential adverse off-site impacts. At least six months prior to construction, SE2 shall submit for the Council's approval a report of the unsteady modeling results and recommendations for reasonable mitigation of any adverse off-site impacts.